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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/799,617	03/15/2004	Koji Tsukimori	SON-2967	8418
23353 7590 08/08/2011 RADER FISHMAN & GRAUER PLLC LION BUILDING 1233 20TH STREET N.W., SUITE 501 WASHINGTON, DC 20036				
EXAMINER ZAMAN, FAISAL M				
ART UNIT 2111		PAPER NUMBER		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/799,617

Applicant(s)

TSUKIMORI ET AL.

Examiner

Faisal M. Zaman

Art Unit

2111

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 July 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 64-87 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 64-87 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-849)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claim 64** is rejected under 35 U.S.C. 103(a) as being unpatentable over Nichols (U.S. Patent No. 7,881,413) and Applicant's Admitted Prior Art ("AAPA").

Regarding Claim 64, Nichols discloses a timing notice apparatus (Nichols, Figure 5, item 500) comprising:

a synchronization information extraction circuit (Nichols, Figure 5, item 504) configured to extract frame synchronization information from within a reference signal (i.e., the DS1 signal), a frame frequency for a frame of data being the frequency for said frame synchronization information (Nichols, Column 14, lines 14-20);

a synchronization information generation circuit configured to generate synthesized synchronization information in the absence of said reference signal, said frame frequency for the frame of data being the frequency for said synthesized synchronization information (Nichols, Column 15, lines 13-16 ["synchronization information generation circuit"] and Column 14, lines 17-20 ["frame frequency for the frame of data"]).

Nichols does not expressly disclose wherein the frame frequency for the frame of data is for a frame of image data.

In the same field of endeavor (e.g., time synchronization among components in a computer system), AAPA teaches wherein a frame frequency for a frame of data is for a frame of image data (AAPA, page 1, lines 5-13 under Description of Related Art).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined AAPA's teachings of time synchronization among components in a computer system with the teachings of Nichols, for the purpose of being able to synchronously process image signals in the computer system.

3. **Claims 65, 66, and 69** are rejected under 35 U.S.C. 103(a) as being unpatentable over Nichols and AAPA as applied to Claim 64 above, and further in view of Iizuka et al. ("Iizuka") (U.S. Patent No. 5,680,596).

Regarding Claim 65, Nichols and AAPA do not expressly disclose a controller configured to await a reception of an acquisition command, an output of a timing notice signal from said controller being permissible only after said reception of the acquisition command.

In the same field of endeavor (e.g., time synchronization among components in a computer system), Iizuka teaches a controller (Iizuka, Figure 2, item 29) configured to await a reception of an acquisition command (Iizuka, Figure 5, item SP4, Column 6, lines 28-31; i.e., the "tuning data request command"), an output of a timing notice signal

(lizuka, Figure 5, item SP5, Column 8, lines 31-36; i.e., the "tuning data signals") from said controller being permissible only after said reception of the acquisition command.

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined lizuka's teachings of time synchronization among components in a computer system with the teachings of Nichols, for the purpose of minimizing the data transfer time without causing an erroneous operation in a given operational environment (see lizuka, Column 1, lines 58-61).

Regarding Claim 66, Nichols discloses wherein said timing notice signal is said frame synchronization information when said reference signal is present (Nichols, Column 14, lines 14-20), said timing notice signal being said synthesized synchronization information when said reference signal is absent (Nichols, Column 15, lines 13-16).

Regarding Claim 69, lizuka teaches a general-purpose interface (lizuka, Figure 2, item 28) configured to transfer said timing notice signal (lizuka, Figure 5, item SP5) to an external peripheral editing device (lizuka, Figure 2, item 1), wherein said general-purpose interface is configured to relay commands and information between a personal computer and said external peripheral editing device (lizuka, Figure 2, item 28).

The motivation that was used in the combination of Claim 65, supra, applies equally as well to Claim 69.

4. **Claim 67** is rejected under 35 U.S.C. 103(a) as being unpatentable over Nichols, AAPA, and Iizuka as applied to Claim 65 above, and further in view of Chun et al. ("Chun") (U.S. Patent No. 6,898,212).

Regarding Claim 67, Nichols, AAPA, and Iizuka do not expressly disclose wherein said controller is configured to receive said acquisition command from a universal serial bus and output said timing notice signal onto said universal serial bus.

In the same field of endeavor (e.g., timing techniques), Chun teaches wherein timing information may be sent and received over a universal serial bus (Chun, Column 3, lines 53-55).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined Chun's teachings of timing techniques with the teachings of Nichols, AAPA, and Iizuka, for the purpose of providing a high speed data transfer interface.

5. **Claim 68** is rejected under 35 U.S.C. 103(a) as being unpatentable over Nichols, AAPA, Iizuka, and Chun as applied to Claim 67 above, and further in view of Holmdahl (U.S. Patent No. 5,675,813).

Regarding Claim 68, Nichols, AAPA, Iizuka, and Chun do not expressly disclose wherein said controller is configured to receive operating power from said universal serial bus.

In the same field of endeavor (e.g., bus device interconnection techniques), Holmdahl teaches wherein a controller is configured to receive operating power from said universal serial bus (Holmdahl, Column 4, lines 43-47).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined Holmdahl's teachings of bus device interconnection techniques with the teachings of Nichols, AAPA, Iizuka, and Chun, for the purpose of preventing the need for an external power supply at the controller.

6. **Claims 70-72** are rejected under 35 U.S.C. 103(a) as being unpatentable over Iizuka, Pries et al. ("Pries") (U.S. Patent No. 6,118,769), and AAPA.

Regarding Claim 70 and 71, Iizuka discloses a computer configured to generate acquisition commands (Iizuka, Figure 2, item 1), the computer comprising:

an interface unit (Iizuka, Figure 2, item 18B) configured to await a reception of a timing notice signal (Iizuka, Figure 5, item SP5, Column 8, lines 31-36; i.e., the "tuning data signals") after transmitting one of the acquisition commands (Iizuka, Figure 5, item SC7).

Iizuka does not expressly disclose a subsequent one of the acquisition commands being transmissible from said interface unit only after said reception of the timing notice signal,

wherein said acquisition commands are generated at a rate of said reception, said rate being at a frame frequency for a frame of image data.

In the same field of endeavor (e.g., timing control techniques), Pries teaches a subsequent one of the acquisition commands being transmissible from said interface unit only after said reception of the timing notice signal,

wherein said acquisition commands are generated at a rate of said reception (Pries, Column 7, lines 21-39).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined Pries' teachings of timing control techniques with the teachings of Iizuka, for the purpose of assuring the timing is continuously synchronized.

Also in the same field of endeavor (e.g., time synchronization among components in a computer system), AAPA teaches said rate being at a frame frequency for a frame of image data (AAPA, page 1, lines 5-13 under Description of Related Art).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined AAPA's teachings of time synchronization among components in a computer system with the teachings of Iizuka, for the purpose of being able to synchronously process image signals in the computer system.

Regarding Claim 72, Pries teaches an application program interface configured to generate said subsequent one of the acquisition commands only after receiving a notification from device driver, said notification indicating said reception (Pries, Column 7, lines 21-39).

The motivation that was used in the combination of Claim 70, *supra*, applies equally as well to Claim 72.

7. **Claims 73 and 86** are rejected under 35 U.S.C. 103(a) as being unpatentable over lizuka and AAPA.

Regarding Claims 73 and 86, lizuka discloses an editing system comprising:

a timing notice apparatus (lizuka, Figure 2, item 2) configured to output a timing notice signal (lizuka, Figure 5, item SP5) and receive acquisition command transmissions (lizuka, Figure 5, item SP4), said timing notice apparatus outputting said timing notice signal after receiving one of the acquisition command transmissions (lizuka, Figure 5, item SP5);

a computer (lizuka, Figure 2, item 1) configured to output said acquisition command transmissions (lizuka, Figure 5, item SC7) and receive said timing notice signal, said computer awaiting a reception of said one of the timing notice signal after outputting said one of the acquisition command transmissions (lizuka, Figure 5, item SC8).

lizuka does not expressly disclose wherein a frequency rate for said timing notice signal is a frame frequency for a frame of image data, output of said acquisition command transmissions from said computer being synchronous with said frequency rate.

In the same field of endeavor (e.g., time synchronization among components in a computer system), AAPA teaches wherein a frequency rate for said timing notice signal

is a frame frequency for a frame of image data, output of said acquisition command transmissions from said computer being synchronous with said frequency rate (AAPA, page 1, lines 5-13 under Description of Related Art).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined AAPA's teachings of time synchronization among components in a computer system with the teachings of Iizuka, for the purpose of being able to synchronously process image signals in the computer system.

8. **Claims 74 and 85** are rejected under 35 U.S.C. 103(a) as being unpatentable over Iizuka and AAPA as applied to Claim 73 above, and further in view of Pries.

Regarding Claim 74, Iizuka and AAPA do not expressly disclose wherein output from said computer of a subsequent one of the acquisition command transmissions is permissible only after said reception of said one of the timing notice signal.

In the same field of endeavor (e.g., timing control techniques), Pries teaches wherein output from said computer of a subsequent one of the acquisition command transmissions is permissible only after said reception of said one of the timing notice signal (Pries, Column 7, lines 21-39).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined Pries' teachings of timing control techniques with the teachings of Iizuka and AAPA, for the purpose of assuring the timing is continuously synchronized.

Regarding Claim 85, Iizuka discloses a general-purpose interface (Iizuka, Figure 2, item 28) configured to transfer said timing notice signal to an external peripheral editing device (Iizuka, Figure 2, item 1), wherein said general-purpose interface relays commands and information between said computer and said external peripheral editing device (Iizuka, Figure 5, item SP5).

9. **Claim 75** is rejected under 35 U.S.C. 103(a) as being unpatentable over Iizuka and AAPA as applied to Claim 73 above, and further in view of Chun.

Regarding Claim 75, Iizuka and AAPA do not expressly disclose wherein said timing notice apparatus is configured to receive said acquisition command from a universal serial bus and transmit said timing notice signal onto said universal serial bus.

In the same field of endeavor (e.g., timing techniques), Chun teaches wherein timing information may be sent and received over a universal serial bus (Chun, Column 3, lines 53-55).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined Chun's teachings of timing techniques with the teachings of Iizuka and AAPA, for the purpose of providing a high speed data transfer interface.

10. **Claim 76** is rejected under 35 U.S.C. 103(a) as being unpatentable over Iizuka, AAPA, and Chun as applied to Claim 75 above, and further in view of Holmdahl.

Regarding Claim 76, Iizuka, AAPA, and Chun do not expressly disclose wherein said timing notice apparatus is configured receive operating power from said universal serial bus.

In the same field of endeavor (e.g., bus device interconnection techniques), Holmdahl teaches wherein an apparatus is configured to receive operating power from said universal serial bus (Holmdahl, Column 4, lines 43-47).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined Holmdahl's teachings of bus device interconnection techniques with the teachings of Iizuka, AAPA, and Chun, for the purpose of preventing the need for an external power supply at the controller.

11. **Claims 77-81, 83, and 84** are rejected under 35 U.S.C. 103(a) as being unpatentable over Iizuka, AAPA, and Pries as applied to Claim 74 above, and further in view of Nichols.

Regarding Claim 77, Iizuka, AAPA, and Pries do not expressly disclose wherein said timing notice signal is frame synchronization information when a reference signal is present, said timing notice signal being synthesized synchronization information when said reference signal is absent.

In the same field of endeavor (e.g., timing control techniques), Nichols teaches a synchronization information generation circuit configured to generate a synthesized signal in the absence of said reference signal (Nichols, Column 15, lines 13-16), a

timing notice signal being said frame synchronization information (Nichols, Column 14, lines 14-20) or said synthesized signal (Nichols, Column 15, lines 13-16).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined Nichols' teachings of timing control techniques with the teachings of Iizuka, AAPA, and Pries, for the purpose of being able to continue performing tasks in the event the reference signal has failed.

Regarding Claim 78, Iizuka, AAPA, and Pries disclose a synchronization information extraction circuit configured to extract said frame synchronization information from within said reference signal, said frame frequency for the frame of image data being the frequency for said frame synchronization information (AAPA, page 1, lines 5-13 under Description of Related Art).

Regarding Claim 79, Nichols teaches a synchronization information generation circuit configured to generate said synthesized synchronization information in the absence of said reference signal, said frame frequency for the frame of image data being the frequency for said synthesized synchronization information (Nichols, Column 15, lines 13-16).

The motivation that was used in the combination of Claim 77, *supra*, applies equally as well to Claim 79.

Regarding Claim 80, Iizuka, AAPA, Pries, and Nichols do not expressly disclose wherein a second timing notice signal is within a second reference signal, said second timing notice signal being extractable from within said second reference signal. However, it would have been obvious to one having ordinary skill in the art to have provided a second timing notice apparatus, since it has been held that duplicating parts of invention involves only routine skill in the art. *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960).

Regarding Claim 81, Iizuka, AAPA, Pries, and Nichols do not expressly disclose wherein a second timing notice apparatus is connectable to said computer, said second timing notice apparatus being configured to await receipt of said acquisition command transmissions and transmit a second timing notice signal. However, it would have been obvious to one having ordinary skill in the art to have provided a second timing notice apparatus, since it has been held that duplicating parts of invention involves only routine skill in the art. *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960).

Regarding Claim 83, Iizuka, AAPA, and Pries disclose wherein said second timing notice signal is transmitted upon receipt of said acquisition command transmissions (Iizuka, Figure 5, item SP5).

Regarding Claim 84, Iizuka, AAPA, and Pries disclose wherein frame frequencies of the image data and second data differ, said second timing notice signal

being transmissible from said second timing notice apparatus (Iizuka, Figure 2, item 2) at said frame frequency of the second data (Iizuka, Figure 5, item SP5).

12. **Claim 82** is rejected under 35 U.S.C. 103(a) as being unpatentable over Iizuka, AAPA, Pries, and Nichols as applied to Claim 81 above, and further in view of Holmdahl.

Regarding Claim 82, Iizuka, AAPA, Pries, and Nichols do not expressly disclose wherein said second timing notice apparatus is connectable to said computer through a hub.

In the same field of endeavor (e.g., bus device interconnection techniques), Holmdahl teaches wherein a second apparatus is connectable to a computer through a hub (Holmdahl, Figure 2, item 32).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined Holmdahl's teachings of bus device interconnection techniques with the teachings of Iizuka, AAPA, Pries, and Nichols, for the purpose of allowing additional devices to communicate with the computer.

13. **Claim 87** is rejected under 35 U.S.C. 103(a) as being unpatentable over Iizuka and AAPA as applied to Claim 86 above, and further in view of Nichols.

Regarding Claim 87, Iizuka and AAPA disclose wherein said timing notice apparatus extracts said timing notice signal from within said reference signal (AAPA, page 1, lines 5-13 under Description of Related Art).

lizuka and AAPA do not expressly disclose said timing notice apparatus synthesizing said timing notice signal in the absence of said reference signal.

In the same field of endeavor (e.g., timing control techniques), Nichols teaches said timing notice apparatus synthesizing said timing notice signal in the absence of said reference signal (Nichols, Column 15, lines 13-16).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined Nichols' teachings of timing control techniques with the teachings of lizuka and AAPA, for the purpose of being able to continue performing tasks in the event the reference signal has failed.

Prior Art of Record

14. The prior art made of record and not relied upon (cited on the attached PTO-892 form) is considered pertinent to applicant's disclosure.

Response to Arguments

15. Applicant's arguments with respect to claims 64, 70, 71, 73, and 86 have been considered but are moot in view of the new ground(s) of rejection presented above.

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Faisal M. Zaman whose telephone number is (571)272-6495. The examiner can normally be reached on Monday thru Friday, 8 am - 5:30 pm, alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart can be reached on 571-272-3632. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Faisal M Zaman/
Primary Examiner, Art Unit 2111